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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,332

04/02/2007

Norio Kurita

46884-5483 (227532)

4933

55694 7590 09/15/2009  
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EXAMINER

TRAN, HUAN HUU

ART UNIT

PAPER NUMBER

2861

MAIL DATE

DELIVERY MODE

09/15/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/582,332	<b>Applicant(s)</b> KURITA ET AL.	
	<b>Examiner</b> Huan H. Tran	<b>Art Unit</b> 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Preliminary amendment filed 07/10/09.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

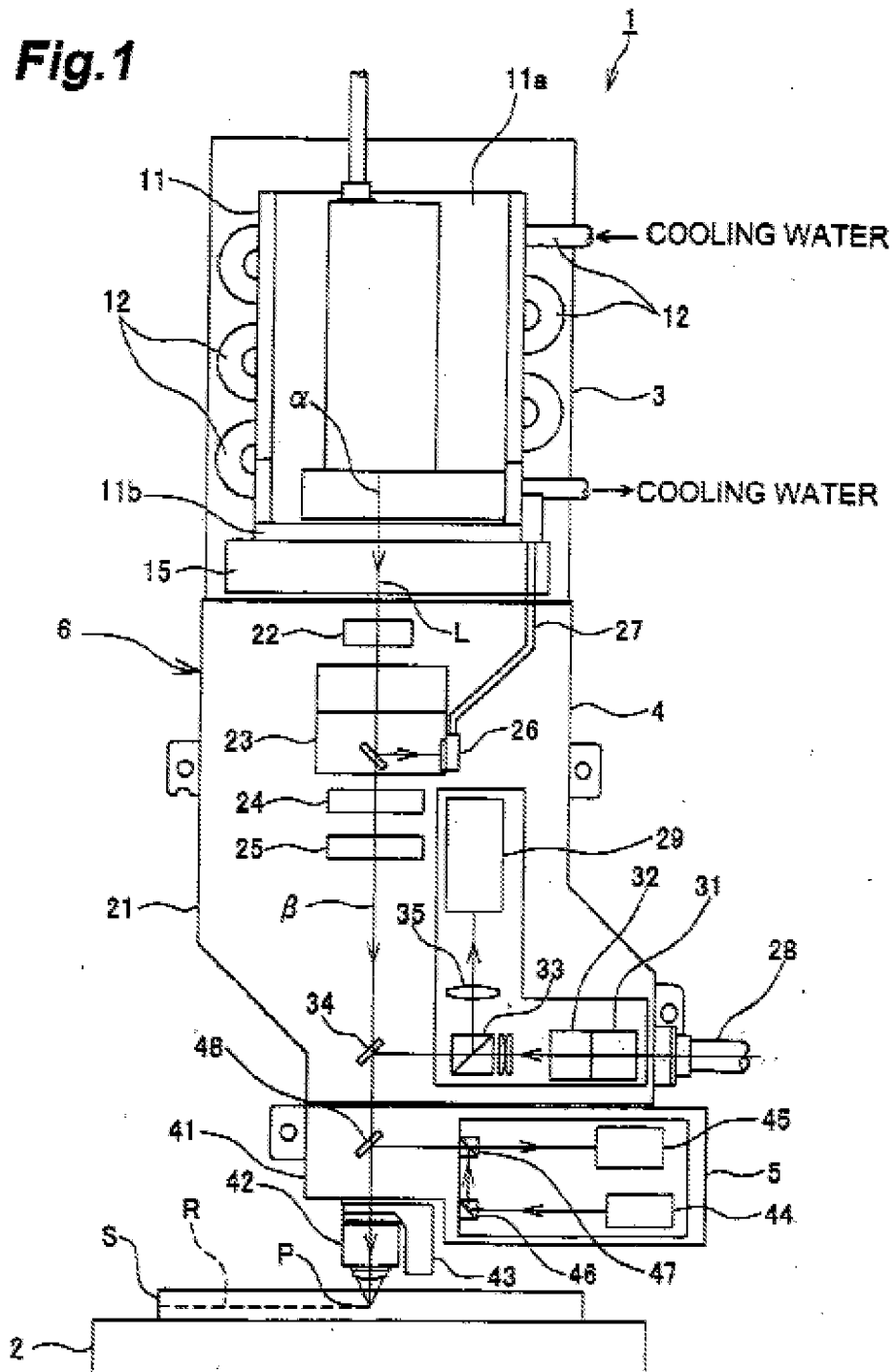
The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claim 4 is rejected under 35 U.S.C. 102(e) as being anticipated by Kurita et al (US Pub. No. US2007/0273950)

The applied reference has a common assignee and/or inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention

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disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.



[0029] The laser head unit 3 is mounted detachably on the top edge of the optical system body 4. This laser head unit 3 has an L-shaped cooling jacket 11, and a cooling tube 12 with cooling water circulating therein is embedded in a meandering shape inside a longitudinal wall 11a of this cooling jacket 11. Mounted on this longitudinal wall 11a are a laser head 13 for outputting the laser beam L in a downward direction, and a shutter unit 14 for selectively opening and closing the optical path of the laser beam L output from this laser head 13. As a result, it is possible to prevent the laser head 13 and shutter unit 14 from becoming overheated. Incidentally, the laser head 13 employs, for example, an Nd:YAG laser, and outputs a pulse laser beam having a pulse width of 1  $\mu$ s or less as the laser beam L.

[0030] Further, in the laser head unit 3, an adjusting unit 15 for adjusting the inclination or the like of the cooling jacket 11 is mounted on the lower face of a bottom wall 11b of the cooling jacket 11. This adjusting unit 15 is for making the optical axis a of the laser beam L output from the laser head 13 coincide with the axis line  $\beta$  set in the optical system body 4 and objective lens unit 5 so as to extend in the vertical direction. In other words, the laser head unit 3 is mounted on the optical system body 4 via the adjusting unit 15. Thereafter, once the inclination or the like of the cooling jacket 11 is adjusted with the adjusting unit 15, the inclination or the like of the laser head 13 is also adjusted by following the movement of the cooling jacket 11. As a result, the laser beam L will advance inside the optical system body 4 in a state where the optical axis a coincides with the axis line  $\beta$ . Incidentally, a through hole for passing the laser beam L therethrough is formed in the bottom wall 11b of the cooling jacket 11, the adjusting unit 15, and a housing 21 of the optical system body 4.

As to claim 4, with reference to Fig. 1 and the description thereof, Kurita et al discloses a laser processing apparatus for processing a subject to be processed by irradiating the subject with laser light, the apparatus comprising:

- a laser head (3) for emitting laser light; a cooling jacket (11) for holding and cooling the laser head;

- an optical system main part (4) for adjusting the laser light emitted from the laser head to a predetermined characteristic; and

- a regulator (15) , disposed between the cooling jacket and optical system main part on an optical axis of the laser head and an optical axis of the optical system main part,

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for adjusting a position and inclination of the cooling jacket with respect to the optical system main part such that the optical axis of the laser head coincides with the optical axis of the optical system main part.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan H. Tran whose telephone number is (571) 272-2261. The examiner can normally be reached on at work on T-F from 6:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Huan H. Tran/  
Primary Examiner, Art Unit 2861

/H. H. T./  
Primary Examiner, Art Unit 2861